

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Confirmation No.: 1766

Roberto GIARDINO, et al.

Date: July 19, 2007

Serial No.: 10/578,658

Group Art Unit: 3762

Filed: December 1, 2006

Examiner: ---

For: ELECTROMAGNETIC FIELD STIMULATOR DEVICE FOR ANATOMIC BIOPHYSICAL  
CHONDROPROTECTION

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VIA EFS-WEB

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

REQUEST FOR A CORRECTED FILING RECEIPT

Sir:

Please issue a corrected filing receipt for the above application. The original filing receipt includes the following error(s):

- ✓ The Foreign Application is incorrect. The correct Foreign Application is: ITALY TO2003A 000893. A copy of the original Declaration setting forth the correct priority data is enclosed.
- ✓ The following data is incorrect: Total Claims 14, the correct data is: Total Claims 15. Enclosed is a copy of the preliminary amendment filed evidencing the correct data.
- ✓ A red-lined copy of the filing receipt reflecting the error(s) is enclosed.

It is requested that the U.S. Patent and Trademark Office issue a corrected filing receipt at the earliest possible date.

In the event payment of any fee is inadvertently not enclosed, or if any additional fee during the prosecution of this case is not paid, the Patent and Trademark Office is authorized to charge the underpayment to Deposit Account No. 15-0700.

Respectfully submitted,



THIS CORRESPONDENCE IS BEING  
SUBMITTED ELECTRONICALLY  
THROUGH THE PATENT AND  
TRADEMARK OFFICE EFS FILING  
SYSTEM ON July 19, 2007.

MM:kc

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Max Moskowitz  
Registration No.: 30,576  
OSTROLENK, FABER, GERB & SOFFEN, LLP  
1180 Avenue of the Americas  
New York, New York 10036-8403  
Telephone: (212) 382-0700



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
 United States Patent and Trademark Office  
 Address: COMMISSIONER FOR PATENTS  
 P.O. Box 1450  
 Alexandria, Virginia 22313-1450  
 www.uspto.gov

APPL NO.	FILING OR 371(c) DATE	ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	TOT CLMS	IND CLMS
10/578,658	12/01/2006	3762	1030	P/2528-40	<del>14</del> 15	2

CONFIRMATION NO. 1766

2352  
 OSTROLENK FABER GERB & SOFFEN  
 1180 AVENUE OF THE AMERICAS  
 NEW YORK, NY 100368403

P/2528-40

## FILING RECEIPT



\*OC000000023390437\*

MM

Date Mailed: 04/17/2007

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please mail to the Commissioner for Patents P.O. Box 1450 Alexandria Va 22313-1450. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).**

## Applicant(s)

Roberto Giardino, Bologna, ITALY;  
 Ruggero Cadossi, Carpi, ITALY;  
 Stefania Setti, Carpi, ITALY;

**Power of Attorney:** The patent practitioners associated with Customer Number 000002352.

## Domestic Priority data as claimed by applicant

This application is a 371 of PCT/EP04/52914 11/10/2004

## Foreign Applications

ITALY ~~T2003A-00093~~ 11/11/2003  
 TO 2003A 000893

If Required, Foreign Filing License Granted: 04/14/2007

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US10/578,658**

Projected Publication Date: 07/26/2007

Non-Publication Request: No

Early Publication Request: No

**Title**

Electromagnetic field stimulator device for anatomic biophysical chondroprotection

**Preliminary Class**

607

## **PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES**

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at <http://www.uspto.gov/web/offices/pac/doc/general/index.html>.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, <http://www.stopfakes.gov>. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4158).

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### **LICENSE FOR FOREIGN FILING UNDER Title 35, United States Code, Section 184 Title 37, Code of Federal Regulations, 5.11 & 5.15**

**GRANTED**

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

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#### **NOT GRANTED**

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

# Declaration and Power of Attorney For Patent Application

## *Modulo di Dichiarazione Per Domanda di Brevetto*

### Italian Language Declaration

Io, sottoscritto inventore, dichiaro con il presente che:

Il mio domicilio, recapito postale e cittadinanza sono quelli indicati in calce accanto al mio nome,

Che mi reputo in buona fede essere l'inventore originario, primo e unico (qualora un solo nominativo appaia elencato appresso) o il coinventore (qualora i nominativi siano piu' di uno) primo e originario dell'invenzione da me rivendicata, e per la quale faccio domanda di brevetto. Tale invenzione é chiamata

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

e la sua descrizione é:

☐ qui acclusa.

☐ E' stata presentata il \_\_\_\_\_ as

Come Domanda Numero \_\_\_\_\_

ed e' stata rettificata il \_\_\_\_\_  
(se applicabile)

Dichiaro inoltre con il presente di aver letto e compreso il contenuto della specificazione sopra indicata, comprese le rivendicazioni, come rettificata da qualsiasi emendamento a cui si sia accennato sopra.

Riconosco il mio dovere di rivelare informazioni che costituiscano materiale per l'esame della presente domanda secondo i termini del Titolo 37, Codice dei Regolamenti Federali, Comma 1,56(a).

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

"ELECTROMAGNETIC FIELD STIMULATOR DEVICE

FOR ANATOMIC BIOPHYSICAL

CHONDROPROTECTION"

the specification of which

☐ is attached hereto

☒ was filed on May 9, 2006

as Application No. 10/578,658

and was amended on \_\_\_\_\_  
(if applicable)

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the patentability and examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

## Italian Language Declaration

Con il presente rivendico i benefici di priorit  per l'estero come stabilito dal Titolo 35, Codice degli Stati Uniti, Comma 119, per qualsiasi domanda di brevetto (o brevetti) straniera o per qualsiasi certificato d'invenzione sotto elencato, ed ho anche elencato qui sotto tutte le domande di brevetto e certificati d'invenzione stranieri aventi una data di presentazione anteriore a quella della domanda per la quale si rivendica la precedenza:

Prior foreign applications

Domande dall'estero precedenti

Priority claimed

Priorit  Rivendicata

TO2003A000893 Italy 11 November 2003  
(Number) (Country) (Day/Month/Year Filed)  
(Numero) (Paese) (Giorno, Mese de Anno di Presentazione)

☒ ☐  
Yes No  
S  No

(Number) (Country) (Day/Month/Year Filed)  
(Numero) (Paese) (Giorno, Mese de Anno di Presentazione)

☐ ☐  
Yes No  
S  No

(Number) (Country) (Day/Month/Year Filed)  
(Numero) (Paese) (Giorno, Mese de Anno di Presentazione)

☐ ☐  
Yes No  
S  No

(Number) (Country) (Day/Month/Year Filed)  
(Numero) (Paese) (Giorno, Mese de Anno di Presentazione)

☐ ☐  
Yes No  
S  No

Con il presente rivendico il beneficio previsto dal Titolo 35, Codice degli Stati Uniti, Comma 120, per qualsiasi domanda (o domande) de brevetto sotto indicata, ed entro i limiti nei quali il materiale indicato in ciascuna delle domande di brevetto non e' stato rivelato nella precedente domanda di brevetto americana nel modo previsto dal primo paragrafo del titolo 35, Codice degli Stati Uniti, Comma 112, riconosco il mio dovere di rivelare il materiale d'informazione, cos  come viene definito nel Titolo 37, Codice dei Regolamenti Federali, Comma 1.56(a), che possa essere venuto ad aggiungersi nel periodo intercorso tra la data di presentazione della domanda precedente e la data nazionale o internazionale PCT di presentazione di questa domanda:

I hereby claim the benefit under Title 35, United States Code,  120, of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code,  112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations,  1.56(a), which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

PCT/EP2004/052914  
(Application Serial No.)  
(Numero di serie della  
Domanda di Brevetto)

10 November 2004  
(Filing Date)  
(Data di  
presentazione)

(Stato Giuridico)  
(Brevetto, In attesa  
di Brevetto, Abbandonato)

(Status)  
(patented, pending,  
abandoned)

(Application Serial No.)  
(Numero di serie della  
Domanda di Brevetto)

(Filing Date)  
(Data di  
presentazione)

(Stato Giuridico)  
(Brevettato, In attesa  
di Brevetto, Abbandonato)

(Status)  
(patented, pending,  
abandoned)

Dichiaro inoltre con il presente che tutte le informazioni da me fornite sono in fede mia vere, e che tutte le affermazioni da me fatte sono in fede mia vere; dichiaro inoltre che quando ho fatto queste affermazioni ero al corrente del fatto che false dichiarazioni fatte intenzionalmente sono punibili con multa o incarcerazione, o ambedue, secondo quanto stabilito dalla sezione 1001 del Titolo 18 del Codice degli Stati Uniti, e che tali informazioni intenzionalmente false possono mettere a repentaglio la validit  della domanda o brevetto rilasciata in base ad esse.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

## Italian Language Declaration

**PROCURA:** Io, sottoscritto inventore, nomino con la presente il seguente Procuratore (o Procuratori) o Agente (Agenti) che s'incarica di perseguire questa pratica e di portare a termine tutte le operazioni necessarie all'Ufficio Brevetti e all'Ufficio Marchi di Fabbrica pertinenti a questa pratica. (Elencare il Nome e il Numero di Matricola):

Samuel H. WEINER, Reg. No. 18,510

Robert C. FABER, Reg. No. 24,322

Max MOSKOWITZ, Reg. No. 30,576

James A. FINDER, Reg. No. 30,173

William O. GRAY, III, Reg. No. 30,944

Louis C. DUJMICH, Reg. No. 30,625

Douglas A. MIRO, Reg. No. 31,643

**POWER OF ATTORNEY:** As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith (*list name and registration number*)

Recapito per la Corrispondenza:

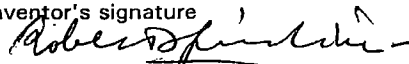
Send Correspondence to:

**OSTROLENK, FABER, GERB & SOFFEN, LLP**  
1180 Avenue of the Americas  
NEW YORK, NEW YORK 10036-8403  
Customer No. 2352

Telefonare a: (*Nome e Numero*)

Direct Telephone Calls to: (*name and telephone number*)

(212) 382 0700

Nome Completo dell'inventore primo e unico	Full name of sole or first inventor <b>Roberto GIARDINO</b>		
Firma dell'inventore	Data	Inventor's signature	Date
			September 7, 2006
Residenza	Residence <b>BOLOGNA, Italy</b>		
Cittadinanza	Citizenship <b>Italian</b>		
Recapito o Casella Postale	Post Office Address <b>Via Toscana, 105/2</b> <b>40100 BOLOGNA (Italy)</b>		
Nome completo del secondo coinventore se applicabile	Full name of second joint inventor, if any <b>Ruggero CADOSI</b>		
Firma del secondo inventore	Data	Second Inventor's signature	Date
Residenza	Residence <b>CARPI, Italy</b>		
Cittadinanza	Citizenship <b>Italian</b>		
Recapito o Casella Postale	Post Office Address <b>Corso Roma, 32</b> <b>41012 CARPI (Italy)</b>		

(Si prega di fornire stesse informazioni e firme di eventuali terzi e piu' coinventori.)

(Supply similar information and signature for third and subsequent joint inventors.)

Nome completo del terzo coinventore se applicabile	Full name of third joint inventor, if any <b>Stefania SETTI</b>
Firma del terzo inventore <span style="float: right;">Data</span>	Third Inventor's signature <span style="float: right;">Date</span>
Residenza	Residence <b>CARPI , Italy</b>
Cittadinanza	Citizenship <b>Italian</b>
Recapito o Casella Postale	Post Office Address <del>Via Antonelli, 14</del> <b>Via Trento Trieste, 69</b> <b>41012 CARPI (Italy)</b>
Nome completo del quarto coinventore se applicabile	Full name of fourth joint inventor, if any
Firma del quarto inventore <span style="float: right;">Data</span>	Fourth Inventor's signature <span style="float: right;">Date</span>
Residenza	Residence
Cittadinanza	Citizenship
Recapito o Casella Postale	Post Office Address
Nome completo del quinto coinventore se applicabile	Full name of fifth joint inventor, if any
Firma del quinto inventore <span style="float: right;">Data</span>	Fifth Inventor's signature <span style="float: right;">Date</span>
Residenza	Residence
Cittadinanza	Citizenship
Recapito o Casella Postale	Post Office Address
Nome completo del sesto coinventore se applicabile	Full name of sixth joint inventor, if any
Firma del sesto inventore <span style="float: right;">Data</span>	Sixth Inventor's signature <span style="float: right;">Date</span>
Residenza	Residence
Cittadinanza	Citizenship
Recapito o Casella Postale	Post Office Address
Nome completo del settimo coinventore se applicabile	Full name of seventh joint inventor, if any
Firma del settimo inventore <span style="float: right;">Data</span>	Seventh Inventor's signature <span style="float: right;">Date</span>
Residenza	Residence
Cittadinanza	Citizenship
Recapito o Casella Postale	Post Office Address



# Declaration and Power of Attorney For Patent Application

## Modulo di Dichiarazione Per Domanda di Brevetto

### Italian Language Declaration

Io, sottoscritto inventore, dichiaro con il presente che:

As a below named inventor, I hereby declare that:

Il mio domicilio, recapito postale e cittadinanza sono quelli indicati in calce accanto al mio nome,

My residence, post office address and citizenship are as stated below next to my name,

Che mi reputo in buona fede essere l'inventore originario, primo e unico (qualora un solo nominativo appaia elencato appresso) o il coinventore (qualora i nominativi siano piu' di uno) primo e originario dell'invenzione da me rivendicata, e per la quale faccio domanda di brevetto. Tale invenzione é chiamata

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

"ELECTROMAGNETIC FIELD STIMULATOR DEVICE  
FOR ANATOMIC BIOPHYSICAL  
CHONDROPROTECTION"

e la sua descrizione é:

the specification of which

☐ qui acclusa.

☐ is attached hereto

☐ E' stata presentata il \_\_\_\_\_ as

☒ was filed on May 9, 2006

Come Domanda Numero \_\_\_\_\_

as Application No. 10/578,658

ed e' stata rettificata il \_\_\_\_\_  
(se applicabile)

and was amended on \_\_\_\_\_  
(if applicable)

Dichiaro inoltre con il presente di aver letto e compreso il contenuto della specificazione sopra indicata, comprese le rivendicazioni, come rettificata da qualsiasi emendamento a cui si sia accennato sopra.

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Prior foreign applications

Domande dall'estero precedenti

Priority claimed

Priorit  Rivendicata

TO2003A000893 Italy 11 November 2003  
(Number) (Country) (Day/Month/Year Filed)  
(Numero) (Paese) (Giorno, Mese de Anno di Presentazione)

☒ ☐  
Yes No  
Si No

(Number) (Country) (Day/Month/Year Filed)  
(Numero) (Paese) (Giorno, Mese de Anno di Presentazione)

☐ ☐  
Yes No  
Si No

(Number) (Country) (Day/Month/Year Filed)  
(Numero) (Paese) (Giorno, Mese de Anno di Presentazione)

☐ ☐  
Yes No  
Si No

(Number) (Country) (Day/Month/Year Filed)  
(Numero) (Paese) (Giorno, Mese de Anno di Presentazione)

☐ ☐  
Yes No  
Si No

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PCT/EP2004/052914 10 November 2004  
(Application Serial No.) (Filing Date)  
(Numero di serie della Domanda di Brevetto) (Data di presentazione)

(Stato Giuridico) (Status)  
(Brevetto, In attesa (patented, pending,  
di Brevetto, Abbandonato) abandoned)

(Application Serial No.) (Filing Date)  
(Numero di serie della Domanda di Brevetto) (Data di presentazione)

(Stato Giuridico) (Status)  
(Brevettato, In attesa (patented, pending,  
di Brevetto, Abbandonato) abandoned)

Dichiaro inoltre con il presente che tutte le informazioni da me fornite sono in fede mia vere, e che tutte le affermazioni da me fatte sono in fede mia vere; dichiaro inoltre che quando ho fatto queste affermazioni ero al corrente del fatto che false dichiarazioni fatte intenzionalmente sono punibili con multa o incarcerazione, o ambedue, secondo quanto stabilito dalla sezione 1001 del Titolo 18 del Codice degli Stati Uniti, e che tali informazioni intenzionalmente false possono mettere a repentaglio la validit  della domanda o brevetto rilasciata in base ad esse.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

## Italian Language Declaration

PROCURA: Io, sottoscritto inventore, nomino con la presente il seguente Procuratore (o Procuratori) o Agente (Agenti) che s'incarica di perseguire questa pratica e di portare a termine tutte le operazioni necessarie all'Ufficio Brevetti e all'Ufficio Marchi di Fabbrica pertinenti a questa pratica. (Elencare il Nome e il Numero di Matricola):

Samuel H. WEINER, Reg. No. 18,510

Robert C. FABER, Reg. No. 24,322

Max MOSKOWITZ, Reg. No. 30,576

James A. FINDER, Reg. No. 30,173

William O. GRAY, III, Reg. No. 30,944

Louis C. DUJMICH, Reg. No. 30,625

Douglas A. MIRO, Reg. No. 31,643

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith (*list name and registration number*)

Recapito per la Corrispondenza:

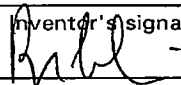
Send Correspondence to:

**OSTROLENK, FABER, GERB & SOFFEN, LLP**  
1180 Avenue of the Americas  
NEW YORK, NEW YORK 10036-8403  
Customer No. 2352

Telefonare a: (*Nome e Numero*)

Direct Telephone Calls to: (*name and telephone number*)

(212) 382 0700

Nome Completo dell'inventore primo e unico	Full name of sole or first inventor <b>Roberto GIARDINO</b>
Firma dell'inventore Data	Inventor's signature Date
Residenza	Residence <b>BOLOGNA, Italy</b>
Cittadinanza	Citizenship <b>Italian</b>
Recapito o Casella Postale	Post Office Address <b>Via Toscana, 105/2 40100 BOLOGNA (Italy)</b>
Nome completo del secondo coinventore se applicabile	Full name of second joint inventor, if any <b>Ruggero CADOSSÌ</b>
Firma del secondo inventore Data	Second inventor's signature Date  <b>September 7, 2006</b>
Residenza	Residence <b>CARPI, Italy</b>
Cittadinanza	Citizenship <b>Italian</b>
Recapito o Casella Postale	Post Office Address <b>Corso Roma, 32 41012 CARPI (Italy)</b>

(Si prega di fornire stesse informazioni e firme di eventuali terzi e piu' coinventori.)

(Supply similar information and signature for third and subsequent joint inventors.)

Nome completo del terzo coinventore se applicabile		Full name of third joint inventor, if any <b>Stefania SETTI</b>	
Firma del terzo inventore	Data	Third Inventor's signature <i>Stefania Setti</i>	Date September 7, 2006
Residenza		Residence <b>CARPI , Italy</b>	
Cittadinanza		Citizenship <b>Italian</b>	
Recapito o Casella Postale		Post Office Address <del>Via Antonelli, 14</del> <b>Via Trento Trieste, 69</b> <b>41012 CARPI (Italy)</b>	
Nome completo del quarto coinventore se applicabile		Full name of fourth joint inventor, if any	
Firma del quarto inventore	Data	Fourth Inventor's signature	Date
Residenza		Residence	
Cittadinanza		Citizenship	
Recapito o Casella Postale		Post Office Address	
Nome completo del quinto coinventore se applicabile		Full name of fifth joint inventor, if any	
Firma del quinto inventore	Data	Fifth Inventor's signature	Date
Residenza		Residence	
Cittadinanza		Citizenship	
Recapito o Casella Postale		Post Office Address	
Nome completo del sesto coinventore se applicabile		Full name of sixth joint inventor, if any	
Firma del sesto inventore	Data	Sixth Inventor's signature	Date
Residenza		Residence	
Cittadinanza		Citizenship	
Recapito o Casella Postale		Post Office Address	
Nome completo del settimo coinventore se applicabile		Full name of seventh joint inventor, if any	
Firma del settimo inventore	Data	Seventh Inventor's signature	Date
Residenza		Residence	
Cittadinanza		Citizenship	
Recapito o Casella Postale		Post Office Address	

10/578658

AP20 Rec'd PCT/PTO 09 MAY 2006

P/2528-40

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Roberto GIARDINO et al

Date: May 9, 2006

International Application No.: PCT/EP2004/052914

International Filing Date: 10 November 2004

For: ELECTROMAGNETIC FIELD STIMULATOR DEVICE FOR ANATOMIC  
BIOPHYSICAL CHONDROPROTECTION

Mail Stop PCT  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

PRELIMINARY AMENDMENT

Sir:

Prior to examination on the merits, kindly amend the application as follows:

FEE CALCULATION

Any additional fee required has been calculated as follows:

\_\_\_\_\_ If checked, "Small Entity" status is claimed.

	NO. CLAIMS AFTER AMENDMENT		HIGHEST NO. PREVIOUSLY PAID FOR		EXTRA PRESENT	RATE	ADDIT. FEE
TOTAL	15	MINUS	20	* =	X	(\$25 SE or \$50)	\$
INDEP.	2	MINUS	3	** =	X	(\$100 SE or \$200)	\$
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM						X (\$180 SE or \$360)	\$
							TOTAL \$

\* not less than 20 \*\* not less than 3

If any additional payment is required, a check which includes the calculated fee of \$ \_\_\_\_\_  
(OFGS Check No. \_\_\_\_\_) is attached.

In the event the actual fee is greater than the payment submitted or is inadvertently not enclosed or if any additional fee during the prosecution of this application is not paid, the Patent Office is authorized to charge the underpayment to Deposit Account No. 15-0700.

**CONTINGENT EXTENSION REQUEST**

If this communication is filed after the shortened statutory time period had elapsed and no separate Petition is enclosed, the Commissioner of Patents and Trademarks is petitioned, under 37 C.F.R. § 1.136(a), to extend the time for filing a response to the outstanding Office Action by the number of months which will avoid abandonment under 37 C.F.R. § 1.135. The fee under 37 C.F.R. § 1.17 should be charged to our Deposit Account No. 15-0700.

**SUMMARY OF AMENDMENTS**

1. ☐ If checked, an abstract is submitted herewith.
2. ☐ If checked, amendment(s) to the drawings are submitted herewith.
3. ☒ If checked, amendment(s) to the specification are submitted herewith.
4. ☒ If checked, amendment(s) to the claims are submitted herewith.

### **AMENDMENT(S) TO THE SPECIFICATION**

**Please add a paragraph beginning at page 1, line 4:**

### **CROSS REFERENCE TO RELATED APPLICATION**

The present application is a 35 U.S.C. §§ 371 national phase conversion of PCT/EP2004/052914, filed 10 November 2004, which claims priority of Italian Patent Application No. TO2003A 000893, filed 11 November 2003, which is herein incorporated by reference. The PCT International Application was published in the English language.

## **LISTING OF THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.(Currently Amended) An electromagnetic field stimulator device for Anatomic Biophysical Chondroprotection, in which means of current generation (~~7, 18 and 20~~) are suitable for powering at least one solenoid (~~24~~) to generate an electromagnetic field directed on a part of the human body (~~26~~) including cartilaginous tissue (~~27~~),

characterized in that the said means of current generation (~~7, 18 and 20~~) supplies said solenoid (~~24~~) with current ( $i(t)$ ) having a waveform that includes the repetition of a linear ramp with a certain slope; said current ( $i(t)$ ) causing the generation of an electromagnetic field that induces on a control probe (~~32~~) irradiated by said electromagnetic field, a voltage ( $V_{in}$ ) of markedly constant amplitude during the ramp-like linear growth period of said current ( $i(t)$ ).

2. (Currently Amended) A device according to claim 1, in which said means of current generation includes at least one table (~~7~~) in which at least one function ( $f(t)$ ) is stored that provides, for each value of a scanning signal in input ( $sc$ ), an output value that expresses a target current intensity ( $I_{out}$ ), the said function  $f(t)$  being a linear one and representing a ramp with a certain slope that supplies, for increasing values of said scanning signal in input ( $sc$ ), linearly increasing values of said target current intensity ( $I_{out}$ ).

3.(Currently Amended) A device according to claim 2, in which said table (~~7~~) contains a number of functions ( $f(t)$ ) of different, selectable types.

4.(Currently Amended) A device according to claim 2, in which timer devices (~~3 and 4~~) are provided that are suitable for generating said scanning signal in input ( $sc$ ).



5.(Currently Amended) A device according to claim 2, in which attenuator devices (~~10~~) are provided with their input communicating with the output of said table (~~7~~), said attenuator devices (~~10~~) being suitable for reducing the value of said target current intensity ( $I_{out}$ ) in function of a programmable parameter ( $IPK$ ) to limit the maximum value of said current ( $i(t)$ ) feeding said solenoid (~~24~~).

6.(Currently Amended) A device according to claim 1, in which a feedback system (~~28, 29, 30, 12 and 14~~) is provided that performs continuous monitoring of said current ( $i(t)$ ) present in said solenoid (~~24~~), comparing (~~12~~) a measured current value ( $I_{mis}$ ) with a reference value (~~7~~,  $I_{out}$ ); in cases of variances between the two said values, due to changes in impedance of said solenoid (~~24~~), said feedback system automatically takes care of adjusting the value of said current ( $i(t)$ ) feeding said solenoid (~~24~~) in order to maintain the waveform of said induced voltage ( $V_{in}$ ) unaltered.

7.(Currently Amended) A device according to claim 6, in which said feedback system (~~28, 29, 30, 12 and 14~~) includes:

detector devices (~~28 and 29~~) suitable for supplying said measured current value ( $I_{mis}$ ), and

subtraction devices (~~12~~) suitable for generating an error signal in function of said measured current value ( $I_{mis}$ ) and of said reference value (~~7~~,  $I_{out}$ ).

8.(Currently Amended) A device according to claim 7, in which a generator circuit (~~18 and 20~~) is provided that receives said error signal in input and generates an alternating analogue power signal ( $S(t)$ ) having a fixed frequency and variable duty cycle in function of said error signal, said variable duty cycle being suitable for regulating the intensity of said current ( $i(t)$ ).

9.(Currently Amended) A device according to claim 8, in which said generator circuit (~~18 and 20~~) includes a pulse width modulator (~~18~~).

10.(Currently Amended) A device according to claim 8 , in which low-pass filter devices (22) are provided between the output of said generator circuit (18 and 20) and the said solenoid (24).

11.(Currently Amended) A device according to claim 1, in which said solenoid (24) is made from a number of sheets of a flexible material to adapt itself to the shape of said portion of the human body (26).

12.(Currently Amended) A method for Anatomic Biophysical Chondroprotection, comprising the phases of:

generating an electromagnetic field and applying it to a portion of the human body (26) including cartilaginous tissue (27),

characterized by the fact that said phase of generating an electromagnetic field includes the phase of:

powering a solenoid (24) with current ( $i(t)$ ) having a waveform that includes the repetition of a ramp with a certain slope, said current ( $i(t)$ ) causing the generation of an electromagnetic field that induces on a control probe (32) irradiated by said electromagnetic field, a voltage ( $V_{in}$ ) of markedly constant amplitude during the period of ramp-like linear growth of said current ( $i(t)$ ).

13.(Currently Amended) A method according to claim 12, in which said current ( $i(t)$ ) presents an intensity and said solenoid (24) presents a configuration such that said electromagnetic field penetrates in depth into said portion of the human body (26) until it permeates said portion of cartilage (27) and a portion of subchondral bone associated with said portion of cartilage (27) over their entire thickness and in their entire extension, to activate at least one of the following processes at intracellular level:

a process of articular inflammation control regarding both subchondral bone and the articular structures,

a process of articular inflammation control capable of acting in a specific manner on the adenosinic receptors A2A of the cell membrane of pro-inflammatory cells, neutrophils, doubling the number of bonds with adenosine,

a process of inhibiting the catabolic effect of inflammatory cytokines acting directly on the chondrocyte and on the cartilaginous matrix,

a process of increasing the metabolic activity of chondrocytes and the synthesis of proteoglycans,

a process of inhibiting degeneration of articular cartilage, preserving the integrity of the same articular cartilage,

a process of rapid healing of subchondral bone tissue,

a process of healing bone marrow edema regarding the subchondral bone of femoral condyles, and

a process of healing and integration of bone grafts after ligament reconstruction operations on the fibrous flexor sheaths of the knee.

14.(Currently Amended) A method according to claim 12, in which said current presents an intensity and said solenoid (24) presents a configuration such that said electromagnetic field penetrates in depth into said portion of the human body (26) until it permeates said portion of cartilage (27) and a portion of subchondral bone associated with said portion of cartilage (27) over their entire thickness and in their entire extension, to activate, in the presence of an osteo-cartilaginous graft, a preservation process for the viability of said portion of cartilage (26) and trigger at least one of the following effects:

inhibition of reabsorption phenomena on the underlying bone,

rapid anchorage of graft,

good osteointegration of graft, and

inhibition of the formation of bone cysts.

15.(Currently Amended) A method according to claim 12, in which said solenoid ~~(24)~~ is made from a number of sheets of a flexible material to adapt itself to the shape of said portion of the human body ~~(26)~~.

**REMARKS/ARGUMENTS**

The specification has been amended to include a cross-reference to related application.

The claims have been amended to place them in better U.S. form and remove the numerals.

**EXPRESS MAIL CERTIFICATE**

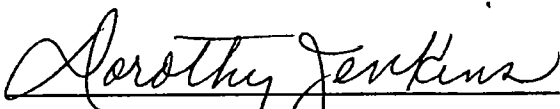
Respectfully submitted,

I hereby certify that this correspondence is being deposited with the United States Postal Service as Express Mail Post Office to Addressee (mail label #EV606196015US in an envelope addressed to: Commissioner for Patents, Mail Stop PCT, P.O. Box 1450, Alexandria, VA 22313-1450, on

May 9, 2006 :

Dorothy Jenkins

\_\_\_\_\_  
Name of Person Mailing Correspondence



\_\_\_\_\_  
Signature

May 9, 2006

\_\_\_\_\_  
Date of Signature

MM:sg

  
\_\_\_\_\_  
Max Moskowitz

Registration No. 30,576

OSTROLENK, FABER, GERB & SOFFEN, LLP

1180 Avenue of the Americas

New York, New York 10036-8403

Telephone: (212) 382-0700